

Work Order ID 161622

Thursday, May 18, 2017 3:34:45 PM

0*161622*

Page 1

Item ID: D2661-2 Accept *N9000040100* Setup Start *NS1*
Revision ID: Stop *NS2*
Item Name: Saddle, RH, Fwd, Aft, Out
Start Date: 5/19/2017 Start Qty: 6.00 *6* Cust Item ID:
Required Date: 6/1/2017 Req'd Qty: 6.00 *6* Customer:
Reference: (P.A.)SCHEDULED/C

Approvals: Process Plan: PA DAS 21 9-89 Date: 2017/05/10 Tooling: Date: Run Start *NR1*
QC: Date: SPC (Y/N): Date: Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
D2661	Rev E

100

1.29

100

HAAS 1

HAAS CNC vertical machine #1

HAAS CNC VERTICAL MACHINING #1

Memo

3.40

Program part number and batch number
MACHINE AS PER DWG AND FOLIO FB071

FOLIO REV: AA
DWG REV: E

DAS
14
9-89

17/05/29

110

0.00

110

Mill Conv

Conventional Milling Machine

CONVENTIONAL MILLING MACHINE

Memo

0.77

Machine Keyway and inspect per attached dimension sheet

DAS
14
9-89

17/05/29

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐							
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval				
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval			
Root Cause		FAULT CATEGORY									
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Substation ☐	Product Improvement ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐
Tribal Knowledge ☐	Rushing ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	LOA ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐
Past Expiry Date ☐	Manufacturing Process ☐	OTHER :									
Misidentified ☐	Past Due ☐										

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Page 2

Item ID: D2661-2 Accept ***N900040100*** Setup Start ***NS1***
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Required Date: 6/1/2017 Req'd Qty: 6.00 ***6*** Customer:
Reference: (P.A.)SCHEDULED/C

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120 *120* QC Quality Control	QC2- Inspect parts off machine FAI/FAIB Memo	0.00 0.06				<u>6</u>	<u>6</u>		DAS 14 9-89 17/05/29
130 *130* QC Quality Control	QC8- Inspect parts - second check Memo	0.00 0.12				<u>6</u>	<u>0</u>		DAS 20 9-89 17-05-29
140 *140* HandFinish Hand Finishing	Chemical Conversion Coat per QSI005 4.1 Memo	0.00 0.45				<u>(x6)</u>	<u>0</u>		201205130 BEB

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Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																											
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Misidentified ☐	Past Due ☐																																																														

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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
150 *150* Powdercoat Powder Coating	White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum <i>M 137176.</i> Memo START TIME: <i>9:05</i> FINISH TIME: <i>9:35</i> OVEN TEMPERATURE: <i>320°</i>	0.00 0.44				<i>6</i>	<i>0</i>	<i>17-05-30</i>	<i>34 9-89</i>
160 *160* QC Quality Control	QC3- Inspect Part Finish Memo	0.00 0.06				<i>6</i>			<i>DAS 38 9-89</i>
170 *170* Packaging Packaging	Identify as per dwg & Stock Location: <i>St 401</i> Memo	0.00 0.06				<i>6</i>	<i>DAS 6 9-89</i>	<i>17/05/30</i>	

MAY 30 2017

DQA: _____ Date: _____



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Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
								Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	

Root Cause			FAULT CATEGORY							
Environment ☐	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐	Power Loss/Surge	☐	Positioned Wrong
Design ☐	☐	Operator	☐	Bending	☐	Set-up	☐	Folio/Program	☐	Outside Dimensions
Doc/Data ☐	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐	Grain	☐	Over/Under tolerance
Equip/Tooling ☐	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐	Weld	☐	Part Incorrect
Handling/Pre ☐	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐	Wrong Stock Pulled	☐	Part Lost/Missing
Material ☐	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐	Out of Sequence	☐	Part Moved
Internal Transport ☐	☐	Poor Information	☐	Crushing	☐	Countersink	☐	Off-set	☐	Drawing
Tribal Knowledge ☐	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐	Mislabeled	☐	Finish
LOA ☐	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐	Fit/Function	☐	Misread
Substation ☐	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐	Misaligned/off center	☐	Turning Sequence
Past Expiry Date ☐	☐	Manufacturing Process	OTHER : _____							
Misidentified ☐	☐	Past Due								

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Thursday, May 18, 2017 3:34:45 PM

161622

Page 4

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Required Date: 6/1/2017 Req'd Qty: 6.00 ***6*** Customer:
Reference: (P.A.)SCHEDULED/C

Approvals: Process Plan: Date: Tooling: Date: Run Start ***NR1***
QC: Date: SPC (Y/N): Date: Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
180	QC21- Final Inspection - Work Order Release	0.00							
180									
QC	Memo	0.60							
Quality Control									

17/6/5 9/17

MAY 30 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval 	
Description Work Order Deviation				Disposition					
								Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	

Root Cause			FAULT CATEGORY							
Environment	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐	Power Loss/Surge	☐	Positioned Wrong
Design	☐	Operator	☐	Bending	☐	Set-up	☐	Folio/Program	☐	Outside Dimensions
Doc/Data	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐	Grain	☐	Over/Under tolerance
Equip/Tooling	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐	Weld	☐	Part Incorrect
Handling/Pre	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐	Wrong Stock Pulled	☐	Part Lost/Missing
Material	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐	Out of Sequence	☐	Part Moved
Internal Transport	☐	Poor Information	☐	Crushing	☐	Countersink	☐	Off-set	☐	Drawing
Tribal Knowledge	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐	Mislabeled	☐	Finish
LOA	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐	Fit/Function	☐	Misread
Substation	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐	Misaligned/off center	☐	Turning Sequence
Past Expiry Date	☐	Manufacturing Process	☐	OTHER :						
Misidentified	☐	Past Due	☐							

Picklist Print

Thursday, May 18, 2017 3:34:45 PM

Page 1

Work Order ID: 161622

161622

Parent Item: D2661-2

D2661-2

Parent Item Name: Saddle, RH, Fwd, Aft, Out

Start Date: 5/19/2017

Required Date: 6/1/2017

Start Qty: 6.00

Required Qty: 6.00

Comments: IPP: C00.11.01Removed P/O for Powder Coat - in house
processEC IPP REV:D
REDESIGN PER ENG ERROR 11-11-17 JLM VERIFIED BY:DD
IPP Rev:D As per Rev D 07-03-19 JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D6101-003		Manufactured	No			100	Each	19.0000	1	6			

D6101-003

Saddle Billet, 7075

**

Location

Loc Qty

Loc Code

MAT040

19

159318

19

5

ml
17/05/29

162144 → 1

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	☐ No Re-verification	☐ Pressure/Forced	☐ Temperature/Cure	☐ Power Loss/Surge	☐ Positioned Wrong				
Design ☐	☐ Operator	☐ Bending	☐ Set-up	☐ Folio/Program	☐ Outside Dimensions				
Doc/Data ☐	☐ Offset/Setup	☐ Centre Not Concentric	☐ BOM/Route	☐ Grain	☐ Over/Under tolerance				
Equip/Tooling ☐	☐ Supplier	☐ Cracks	☐ Broken/Damage/Defect	☐ Weld	☐ Part Incorrect				
Handling/Pre ☐	☐ Training	☐ Crimp/Kink/Ripple/Wave	☐ Inspection Incomplete/Unqualified	☐ Wrong Stock Pulled	☐ Part Lost/Missing				
Material ☐	☐ Use for Testing	☐ Cuffs	☐ Contamination	☐ Out of Sequence	☐ Part Moved				
Internal Transport ☐	☐ Poor Information	☐ Crushing	☐ Countersink	☐ Off-set	☐ Drawing				
Tribal Knowledge ☐	☐ Rushing	☐ Heat Treat	☐ Cut Too Short	☐ Misabeled	☐ Finish				
LOA ☐	☐ Product Improvement	☐ Wave/Twist in Tube	☐ Instructions Incomplete/Unclear	☐ Fit/Function	☐ Misread				
Substation ☐	☐ Process Improvement	☐ Marks/Chatter	☐ Drill Holes	☐ Misaligned/off center	☐ Turning Sequence				
Past Expiry Date ☐	☐ Manufacturing Process	OTHER :							
Misidentified ☐	☐ Past Due								

DART AEROSPACE LTD				Work Order: 161622	
Description: 206 Saddle, Outboard, Right side				Part Number: D2661-2	
Inspection Dwg: D2661 Rev: E DSK: Rev:				Page 1 of 1	

FIRST ARTICLE INSPECTION DIMENSION SHEET

Dim	Min	Max	Go/No Go Gauge	Record Actual Dimensions				
				1	2	3	4	5
A	3.611	3.621		3.616				
B	0.256	0.263		.258				
C	0.315	0.322		.318				
D	2.495	2.505		2.500				
E	1.674	1.684		1.679				
F	1.357	1.367		1.362				
G	0.100	0.140		.124				
H	0.210	0.230		.225				
I	0.615	0.685		.675				
J	2.470	2.510		2.490				
K	1.313	1.343		1.325				
L	0.178	0.198		.188				
M	0.470	0.530		.500				
N	1.125	1.145		1.135				
O	0.100	0.180		.140				
P	0.100	0.140		.132				
Q	0.240	0.260		.250				
R	0.677	0.697		.686				
S	0.100	0.140		.126				
T	1.565	1.585		1.575				
U	0.540	0.560		.549				
V	0.912	0.932		.922				
W	0.787	0.807		.793				
X	5.990	6.010		5.998				
Y	4.995	5.005		5.000				
Z	0.490	0.510		.500				
AA	0.312	0.319		.314				
AB	0.990	1.010		1.000				
AC	1.245	1.255		1.250				
AD	0.490	0.510		.500				
AE	3.745	3.755		3.750				
AF	0.235	0.240		.237				
AG	0.510	0.515		.512				
AH	0.100	0.120		.110				
DAS Accept/Reject								

Measured by: 14 9-89 DAS	Date: 17/05/29
Audited by: 20 9-89	Date: 17-05-29
Prototype Approval:	Date:

Rev	Date	Change	Revised by	Approved
E	06.07.05	Revised per drawing revision C	KJ/JLM	
F	07.03.21	Revised per drawing revision D	KJ/JLM	
G	11.11.07	Dimensions C and F revised	KJ	
H	12.01.10	Revised per drawing revision E	KJ	

DQA: _____ Date: _____



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Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
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Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
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LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐								
Misidentified ☐	Past Due ☐	OTHER :							

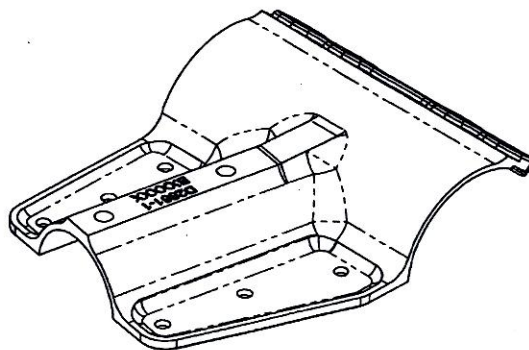
DART AEROSPACE LTD				Work Order: 1161622	
Description: 206 Saddle, Outboard, Right side				Part Number: D2661-2	
Inspection Dwg: D2661 Rev: E DSK: Rev:				Page 1 of 1	

FIRST ARTICLE INSPECTION DIMENSION SHEET

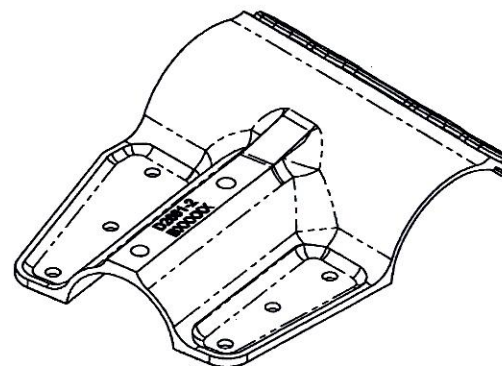
Dim	Min	Max	Go/No Go Gauge	Record Actual Dimensions				
				1	2	3	4	5
A	3.611	3.621		3.616	3.618	3.618	3.618	3.618
B	0.256	0.263		.258	.258	.258	.258	.258
C	0.315	0.322		.318	.318	.318	.318	.318
D	2.495	2.505		2.500	2.500	2.500	2.500	2.500
E	1.674	1.684		1.679	1.679	1.679	1.679	1.679
F	1.357	1.367		1.362	1.362	1.362	1.362	1.362
G	0.100	0.140		.123	.125	.125	.124	.124
H	0.210	0.230		.230	.225	.225	.225	.225
I	0.615	0.685		.680	.675	.675	.680	.680
J	2.470	2.510		2.490	2.490	2.490	2.490	2.490
K	1.313	1.343		1.328	1.325	1.325	1.325	1.325
L	0.178	0.198		.188	.188	.188	.188	.188
M	0.470	0.530		.500	.500	.500	.500	.500
N	1.125	1.145		1.135	1.135	1.135	1.135	1.135
O	0.100	0.180		.140	.140	.140	.140	.140
P	0.100	0.140		.131	.132	.132	.132	.132
Q	0.240	0.260		.256	.253	.249	.252	.249
R	0.677	0.697		.688	.688	.687	.687	.687
S	0.100	0.140		.124	.126	.123	.124	.124
T	1.565	1.585		1.575	1.575	1.575	1.575	1.575
U	0.540	0.560		.545	.548	.548	.549	.549
V	0.912	0.932		.921	.924	.922	.923	.922
W	0.787	0.807		.795	.796	.796	.794	.794
X	5.990	6.010		5.997	5.998	5.998	5.998	5.998
Y	4.995	5.005		5.000	5.000	5.000	5.000	5.000
Z	0.490	0.510		.500	.500	.500	.500	.500
AA	0.312	0.319		.314	.314	.314	.314	.314
AB	0.990	1.010		1.000	1.002	1.002	1.002	1.002
AC	1.245	1.255		1.250	1.250	1.250	1.250	1.250
AD	0.490	0.510		.500	.500	.500	.500	.500
AE	3.745	3.755		3.750	3.750	3.750	3.750	3.750
AF	0.235	0.240		.238	.237	.236	.237	.237
AG	0.510	0.515		.513	.512	.512	.512	.512
AH	0.100	0.120		.110	.110	.110	.110	.110
DAS Accept/Reject								

Measured by: 14 9-89 DAS	Date: 17/05/29
Audited by: 20 9-89	Date: 17-05-29
Prototype Approval:	Date:

Rev	Date	Change	Revised by	Approved
E	06.07.05	Revised per drawing revision C	KJ/JLM	
F	07.03.21	Revised per drawing revision D	KJ/JLM	
G	11.11.07	Dimensions C and F revised	KJ	
H	12.01.10	Revised per drawing revision E	KJ	



D2661-1 SADDLE, OUTSIDE, LH



D2661-2 SADDLE, OUTSIDE, RH

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WITHOUT NOTICE
WORK ORDER
NO. 161622
PT 2017105119

E	REDRAW & REFORMAT DWG; 0.687 WAS 0.547 (B6-2,B8-4), REF NCR 11-935	CP	11.10.31
D	R0.188 WAS R0.30; Ø0.316 WAS Ø0.313	CB	06.11.08
C	INCORPORATE DEO 9122, 9102, 9065	CB	06.05.29
B	ANGLE AND NOTES ADDED	KE	97.07.11
A	NEW ISSUE	DS	07.03.25
REV.	DESCRIPTION	BY	DATE
DESIGN		DART AEROSPACE USA, INC. KENT, WA	
DRAWN			
CHECKED	ASS	DRAWING NO.	REV. E
MFG. APPR.		D2661	SHEET 1 OF 5
APPROVED		TITLE	SCALE
DE APPR.		SADDLE, OUTSIDE	NTS
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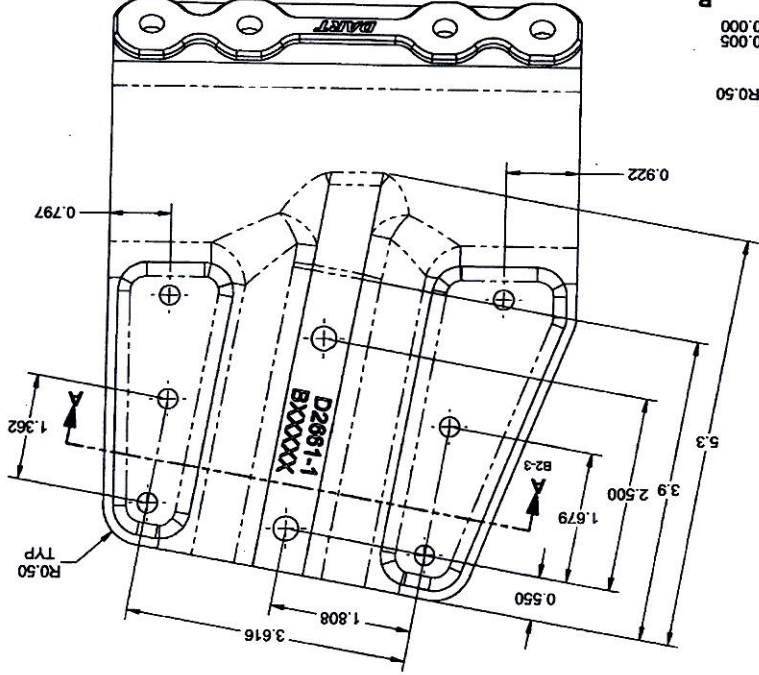
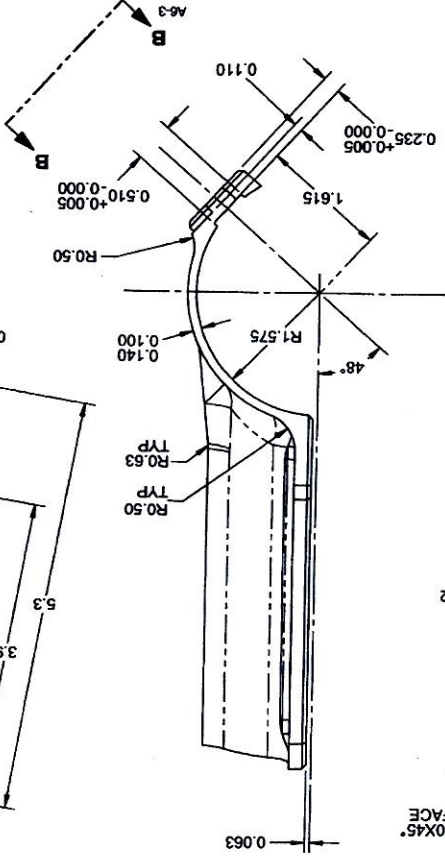
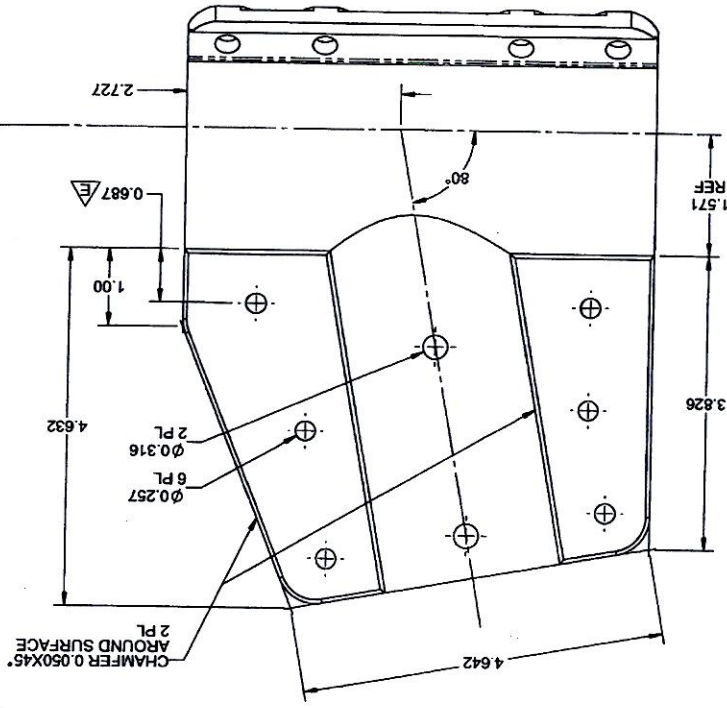
WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : ☐							
Misidentified ☐	Past Due ☐								

- D2661-1 SADDLE, OUTSIDE LH**
- 1) MATERIAL: 7075-T7351 ALUMINUM PLATE PER QQ-A-250/12, AMS-QQ-A-250/12, OR ASTM B209
MAKE FROM D6101-003 SADDLE BILLET
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT "WHITE GLOSS" (4.3.5.1) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.010 TO 0.020 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N AND B/N PER DART QSI 044 6.3 (CNC ENGRAVING)
USING MAX DEPTH OF 0.010 WITH MIN RADIUS OF 0.010
IDENTIFY WITH DART LOGO PER DART QSI 044 6.3 (CNC ENGRAVING)
USING MAX DEPTH OF 0.015 WITH MIN RADIUS OF 0.25
- 7) WEIGHT: 0.79 lbs



DATE	11.10.31
DE APPR.	
APPROVED	
MFG. APPR.	
CHECKED	
DRAWN	
DESIGN	

DART AEROSPACE USA, INC.
KENT, WA

DRAWING NO. **D2661**
TITLE **SADDLE, OUTSIDE**
SCALE
SHEET 2 OF 6
REV. E

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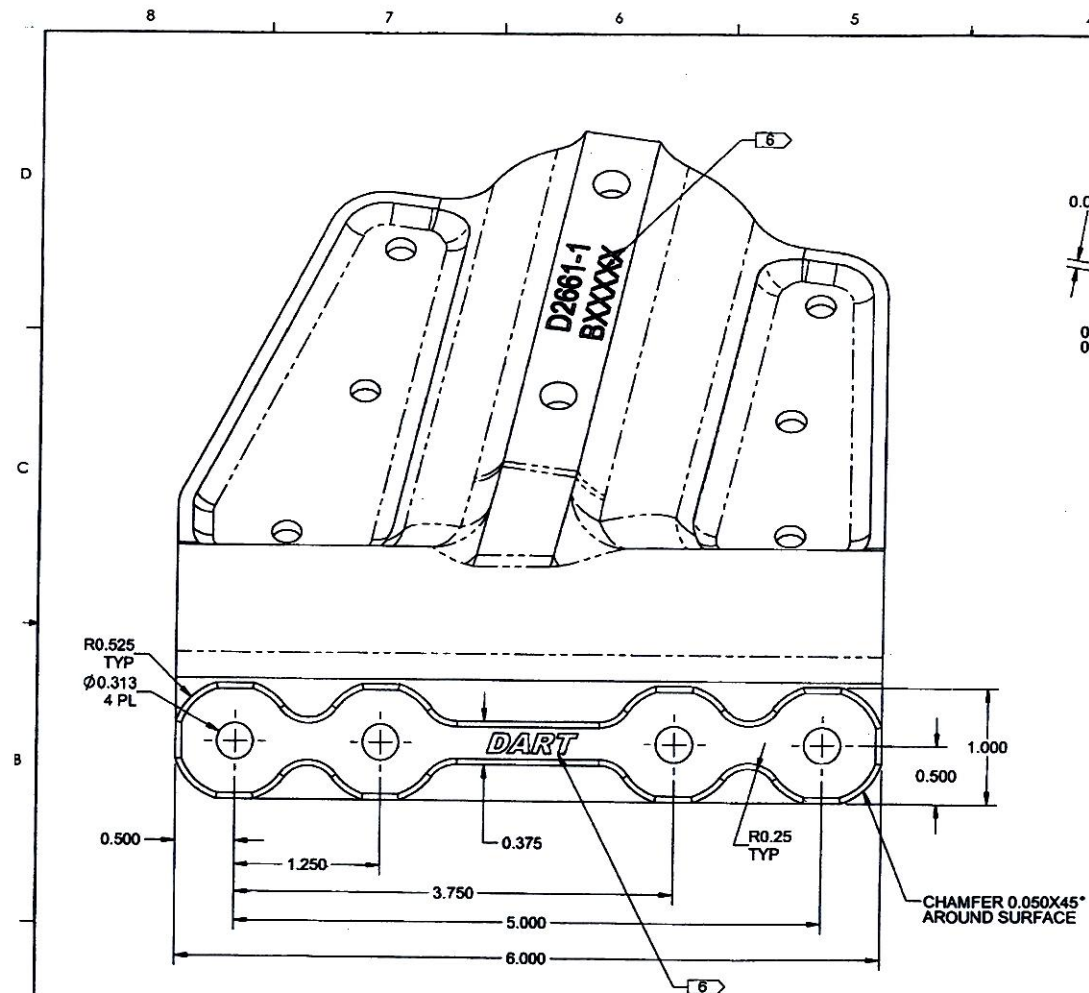
WORK ORDER NON-CONFORMANCE / UPDATE



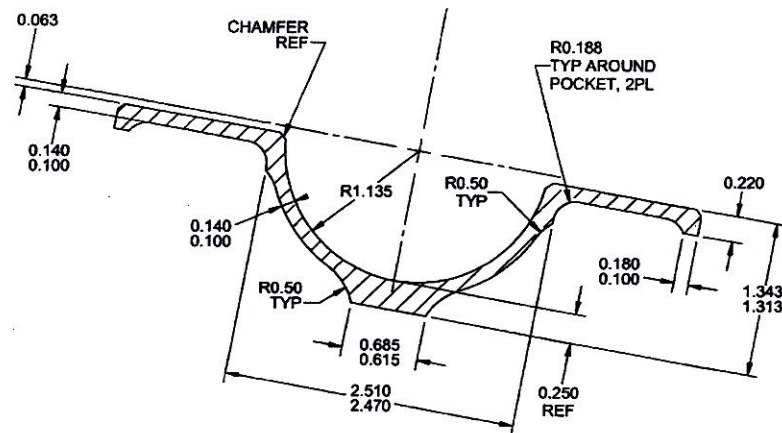
QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval																																																									
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Root Cause		FAULT CATEGORY																																																															
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Misidentified ☐	Past Due ☐																																																																



VIEW B-B
SCALE 1.5X
VIEW ROTATED



VIEW A-A
SCALE 1.5X

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2011-11-16

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CHECKED		DRAWING NO. D2661	REV. E
MFG. APPR.		TITLE	SHEET 3 OF 6
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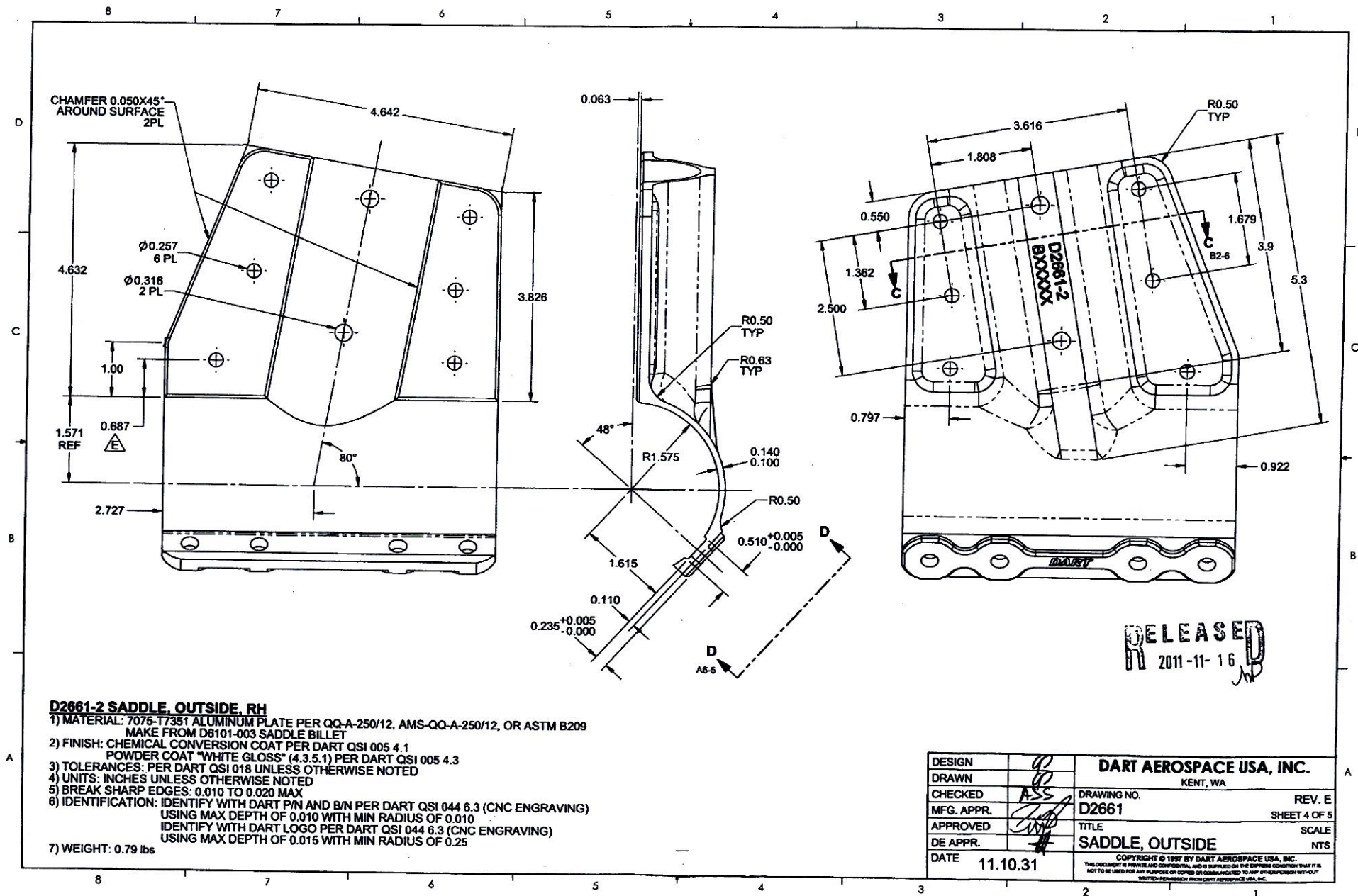


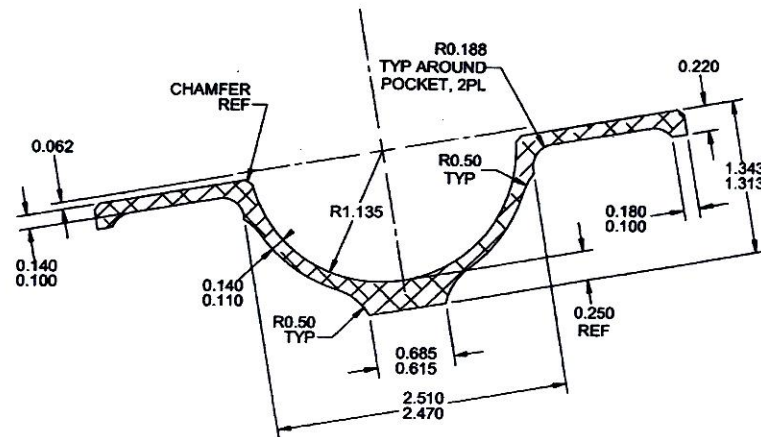
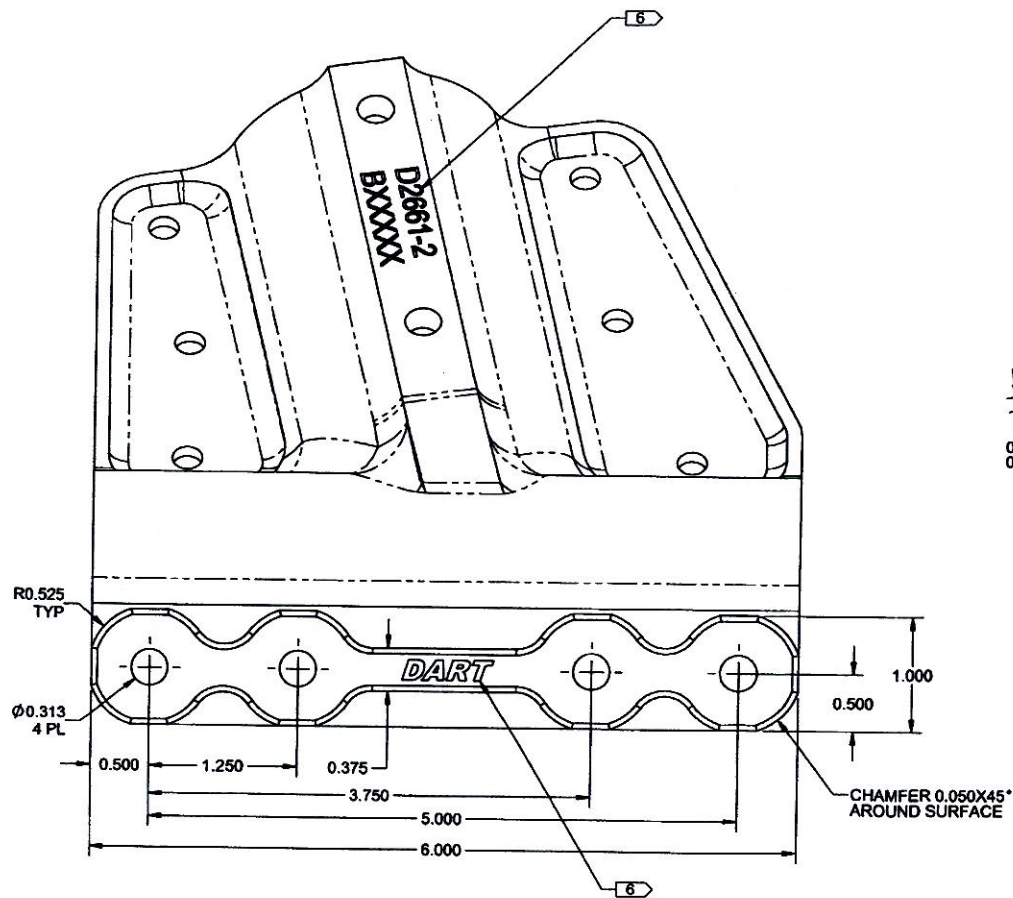
WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
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Root Cause		FAULT CATEGORY							
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Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
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Past Expiry Date ☐	Manufacturing Process ☐								
Misidentified ☐	Past Due ☐								
OTHER : ☐									





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MFG. APPR.		TITLE	SHEET 5 OF 5
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DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
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